



# UNITED STATES PATENT AND TRADEMARK OFFICE

A1

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,795	02/23/2004	Masayuki Hirose	040256-0132	5437
22428	7590	03/25/2005	EXAMINER	
FOLEY AND LARDNER SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			PRASAD, CHANDRIKA	
			ART UNIT	PAPER NUMBER
			2839	

DATE MAILED: 03/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/782,795	Applicant(s) HIROSE, MASAYUKI	
	Examiner Chandrika Prasad	Art Unit 2839	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/3/04</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

#### ***Claim Objections***

2. Claims 1-20 are objected to because of the following informalities:
  - Claim 1, line 2; claim 4, line 3: "core material" should be changed to -- core --.
  - Claims 2-21, line 1: The beginning article "A" should be changed to -- the --.
  - Claims 13-21, line 1: "cable line" should be changed to -- cable --.

Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim1- 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Huang (6394852).

Huang (Figures 5-13) shows a terminal structure of a direct current superconducting cable comprising a core 111 and a plurality of superconducting layers 121, 131, 141, 151 exposed in a step-by-step manner to a plurality of outgoing conductors 32, 33, 34, 35, respectively in a direction perpendicular to the axial direction and extended along the axial direction. A plurality of insulating fixing layers are provided to support the core and the outgoing conductors. A return-current layer 161 is provided

Art Unit: 2839

next to an insulating layer. One end of the cable has a terminal structure and each of the outgoing conductors is connected to loads.

5. Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang (6394852).

Huang shows all the features of these claims except a mechanism for cutting off a superconducting layer from power supply and load. Such a mechanism such as switch is common knowledge. It would have been obvious to one of ordinary skill in the art at the time of the instant invention to provide such a mechanism because this would provide a means to cutoff power and/or load for safety reasons as is well known in the art of electrical connectors.

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lin 96572402), Buck (4165147), Falossi et al. (5409403), Showman et al. (4390224).


**Contact Information**

9. Any correspondence to this action may be mailed to:

**Commissioner for Patents  
Post Office Box 1450  
Alexandria, VA 22313-1450**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chandrika Prasad whose telephone number is (571) 272-2099.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor can be reached at (571) 272-2800 ext 39. The fax number is (703) 872-9306.

  
Chandrika Prasad  
Primary examiner  
March 21, 2005